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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/729,693	12/06/2000	Shantha C. Nalur	8265-366	8558

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EXAMINER

PADEN, CAROLYN A

ART UNIT PAPER NUMBER

1761

DATE MAILED: 03/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/729,693

Applicant(s)

NALUR ET AL.

Examiner

Carolyn A Paden

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-7,9,10,12-14,17,20,22,23,25 and 29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7,22,25 and 29 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,9,10,12-14,17,20,23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Claims 7, 22, 25 and 29 are allowed.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krawczyk (5,505,982) and as further evidenced by Safety data for sorbitan monostearate and Seiden (3,733,210) taken together.

The rejection of claims 2 and 23 under 35 USC 102 over Krawczyk etc. has been dropped because the emulsifier content is different from that set forth in the claims.

Krawczyk discloses co-processed cellulose surfactant made from Avicel microcrystalline cellulose and sorbitan mono-stearate in example 1. In example 6 the co-processed composition is used for making chocolate. The sorbitan monostearate is stated to

have an HLB of 4.7. The mixture is heated to 71.1C to keep the combination melted. In order to more precisely point out the melting point of sorbitan monostearate, examiner has provided "Safety data for sorbitan monostearate". This reference shows that the melting point of Sorbitan monostearate falls within the temperature range that is set forth in the claims. The melting point of a chemical compound is one of its critical properties and is one of the first properties measured when a new compound is discovered or invented. But sorbitan monostearate has been known for use in foods for many years, as evidenced by Seiden (3,732,210), who discusses the melting properties of emulsifiers used in his invention at column 3. Thus one of ordinary skill in the art, with at least one or two courses in college chemistry, would have recognized that the melting point of sorbitan monostearate is an inherent property of the chemical compound, which would have been known at the time of applicants invention to fall within the temperature range that is set forth in the claims.

Applicant argues that the primary reference does not state that the emulsifier has a melting point of from 60-90C. Applicant argues that the reference states that the mixture is maintained at 71.7C to keep the emulsifier above its melting point and in a liquid state. This has been considered but is not persuasive. One of ordinary skill in the art would have anticipated that the Krawczyk emulsifier has a melting point of between 60-90C by virtue of the statement that it is melted at 71.7C. Applicant urges that the melting point of the emulsifier must be less than 60 because that is the temperature at which it is homogenized. This argument has been considered but is not persuasive because Krawczyk does not require the mixture to be melted during homogenization. From the overall teachings of the prior art, one of ordinary skill in the art would still anticipate that the melting point of the emulsifier falls within the wide range of 60-90C. Applicant argues that Krawczyk does not teach the same amount of emulsifier that applicant uses. The claims appear to differ from Krawczyk in the

recitation of the specific emulsifier content that is used in the chocolate product. It would have been obvious to one of ordinary skill in the art to vary emulsifier content in the chocolate formulation of Krawczyk in order to modify the viscosity of the Krawczyk chocolate (note especially column 13, line 5, wherein emulsifier is added to modify chocolate viscosity). Thus the fact that the emulsifier content of Krawczyk is not identical to applicants' does not alone constitute unobviousness. Applicant urges that Krawczyk uses a surfactant with a wide range in HLB values. This has been considered but is not persuasive because the HLB range still includes the HLB values of the claims.

Claims 1,4-6,9, 10, 12-14, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krawczyk as further evidenced by Food Ingredient Catalog.

Krawczyk discloses co-processed cellulose surfactant made from Avicel microcrystalline cellulose and a surfactant, such as monoglyceride. The emulsifiers contemplated are shown at

column 2, lines 18-40 and at column 3, lines 30-67 to include distilled monoglycerides, with an HLB value of 3.8-5.3 at column 3, lines 53-54 and also a mixture of polysorbate and glycerol monostearate that has an HLB value of 4.0 at column 3, line 38. Any of these emulsifiers are disclosed to be useful with cellulose in preparing the chocolate of example 6. Thus the emulsifier in Krawczyk is disclosed to have the HLB property that is set forth in the claims. The melting point of glycerol monostearate is a property that is inherent to the compound. The melting point is generally known in the art to be measured at the time the compound is discovered or invented. "Food Ingredient Catalog" provides evidence for the melting point of monoglycerides at page 27. Evidence that the melting point of glycerol monostearate is suggested to be within the range that is set forth in the claims is provided by "Handbook of Chemistry and Physics". This evidence shows that with the melting point of the monoglyceride increases with increasing fatty acid chain length. The evidence, as a whole,

suggests that the properties of melting point and HLB value were known at the time of applicant's invention to be within the range of values that is set forth in the claims.

With regard to claim 1, applicant argues that claim 1 does not utilize sorbitan monostearate. This has been considered but Krawczyk draws equivalence among the emulsifiers at the above-recited passages. Applicant argues a wide HLB range but the range still falls within the values set forth in the claims. Thus the argument does not overcome the rejection. Applicant argues that the emulsifier composition in Krawczyk is a composite. This has been considered but is not persuasive because the claims are open to the inclusion of a composite. Applicant argues the melting point of the emulsifier but sorbitan monostearate is not the only emulsifier contemplated in his invention. Other emulsifiers are equally contemplated in Krawczyk.

The overall process steps in claim 9 are shown in example 6. The mixing steps are shown at steps 1-2. The warming step is



shown in 5 and the cooling step is shown in step 6. The formulation of the chocolate composition is shown in step 1 and example 1. The amount of emulsifier that is present in the product of Krawczyk is different. But no unobvious or unexpected result is seen to flow from this difference.

Claim 13 is disclosed in Krawczyk at example 21. This is a non-dairy creamer containing 10% soybean oil. The emulsifier is present within the composite and the amount used in the product appears to generally fall within the range that is set forth in the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn A Paden whose telephone number is 703-308-3294. The examiner can normally be reached on Monday to Friday from 7 am to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano, can be

Application/Control Number: 09/729,693  
Art Unit: 1761

Page 9

reached on (703) 308-3959. The fax phone number for the organization where this application or proceeding is assigned is 703-305-7718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

*Carolyn Paden*  
CAROLYN PADEN 3-1-04  
PRIMARY EXAMINER  
GROUP 1360-1761